

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) A method for making an absorbent composite from a continuous tow comprising the steps of:

spreading a crimped tow;

de-registering the crimped tow by using at least two pairs of rollers, each pair of rollers having a metal-faced roller and a ~~rubber~~ elastic-polymer-faced roller and the metal-faced rollers being oppositely disposed about the tow;

shaping the de-registered tow; and

distributing a particulate onto the shaped tow.

2. (original) The method of Claim 1 wherein said metal faced rollers being smooth, grooved, threaded, textured, or combinations thereof.

3. (currently amended) The method of Claim 1 wherein said ~~rubber~~ elastic-polymer faced roller being smooth.

4. (original) The method of Claim 1 wherein said pair of rollers being vertically aligned, one over the other.

5. (currently amended) The method of Claim 1 wherein one said pair of rollers ~~(S₁)~~ (S₂) rotates faster than the other pair of rollers ~~(S₂)~~ (S₁).

6. (previously presented) The method of Claim 5 wherein a speed ratio (S₁/S₂) being in the range of $1 \leq S_1/S_2 \leq 2$.

7. (previously presented) The method of Claim 6 wherein the speed ratio (S₁/S₂) being in the range of $1.1 \leq S_1/S_2 \leq 1.7$.

8. (original) The method of Claim 1 further comprising shaping the de-registered tow to a substantially rectangular cross-section.

9. (original) The method of Claim 1 further comprising applying a liquid to the tow.

10. (currently amended) An apparatus for making an absorbent composite from a continuous tow comprising the steps of:

means for spreading a crimped tow;

means for de-registering the crimped tow by using at least two pairs of rollers, each pair of rollers having a metal faced roller and a ~~rubber~~ elastic-polymer faced roller and the metal faced rollers being oppositely disposed about the tow;

means for shaping the de-registered tow; and

means for distributing a particulate onto the shaped tow.

11. (original) The apparatus of Claim 10 wherein said metal faced rollers being smooth, grooved, threaded, textured, or combinations thereof.

12. (currently amended) The apparatus of Claim 10 wherein said ~~rubber~~ elastic-polymer faced roller being smooth.

13. (original) The apparatus of Claim 10 wherein said pair of rollers being vertically aligned, one over the other.

14. (currently amended) The apparatus of Claim 10 wherein one said pair of rollers ~~(S₁)~~ (S₂) rotates faster than the other pair of rollers ~~(S₄)~~ (S₃).

15. (previously presented) The apparatus of Claim 14 a speed ratio (S_1/S_3) being in the range of $1 \leq S_1/S_3 \leq 2$.

16. (previously presented) The apparatus of Claim 15 wherein the speed ratio (S_1/S_3) being in the range of $1.1 \leq S_1/S_3 \leq 1.7$.

17. (original) The apparatus of Claim 10 further comprising means for shaping the de-registered tow to a substantially rectangular cross-section.

18. (original) The apparatus of Claim 10 further comprising means for applying a liquid to the tow.

19. (currently amended) A method for making an absorbent composite from a continuous tow comprising the steps of:

spreading a crimped tow;

de-registering the crimped tow by using at least two pairs of rollers, each pair of rollers having a metal-faced roller and a ~~rubber~~ elastic-polymer-faced roller, the metal faced rollers being oppositely disposed about the tow, and said pairs of rollers being vertically aligned, one said pair over the ~~other~~ next said pair or at any angle between vertically aligned and horizontally aligned, but not including horizontally aligned;

shaping the de-registered tow; and

distributing a particulate onto the shaped tow.

20. (original) The method of Claim 19 wherein said metal faced rollers being smooth, grooved, threaded, textured, or combinations thereof.

21. (currently amended) The method of Claim 19 wherein said ~~rubber~~ elastic-polymer faced roller being smooth.

22. (canceled)

23. (currently amended) The method of Claim 19 wherein one said pair of rollers ~~(S₁)~~ (S₁) rotates faster than the other pair of rollers ~~(S₂)~~ (S₂).

24. (previously presented) The method of Claim 23 wherein a speed ratio (S₁/S₂) being in the range of $1 \leq S_1/S_2 \leq 2$.

25. (previously presented) The method of Claim 24 wherein the speed ratio (S₁/S₂) being in the range of $1.1 \leq S_1/S_2 \leq 1.7$.

26. (original) The method of Claim 19 further comprising shaping the de-registered tow to a substantially rectangular cross-section.

27. (original) The method of Claim 19 further comprising applying a liquid to the tow.

28. (currently amended) An apparatus for making an absorbent composite from a continuous tow comprising the steps of:

means for spreading a crimped tow;

means for de-registering the crimped tow by using at least two pairs of rollers, each pair of rollers having a metal faced roller and a ~~rubber~~ elastic-polymer faced roller, the metal faced rollers being oppositely disposed about the tow, and said pairs of rollers being vertically aligned, one said pair over the ~~other~~ next said pair or at any angle between vertically aligned and horizontally aligned, but not including horizontally aligned;

means for shaping the de-registered tow; and

means for distributing a particulate onto the shaped tow.

29. (original) The apparatus of Claim 28 wherein said metal faced rollers being smooth, grooved, threaded, textured, or combinations thereof.

30. (currently amended) The apparatus of Claim 28 wherein said ~~rubber~~ elastic-polymer faced roller being smooth.

31. (canceled)

32. (currently amended) The apparatus of Claim 28 wherein one said pair of rollers ~~+(S₁)~~ (S₁) rotates faster than the other pair of rollers ~~+(S₂)~~ (S₂).

33. (previously presented) The apparatus of Claim 32 wherein a speed ratio (S_1/S_2) being in the range of $1 \leq S_1/S_2 \leq 2$.

34. (previously presented) The apparatus of Claim 33 wherein the speed ratio (S_f/S_s) being in the range of $1.1 \leq S_f/S_s \leq 1.7$.

35. (previously presented) The apparatus of Claim 28 further comprising means for shaping the de-registered tow to a substantially rectangular cross-section.

36. (previously presented) The apparatus of Claim 28 further comprising means for applying a liquid to the tow.